

AMENDMENTS TO THE CLAIMS

Claims 1, 3, 5-11, 13-27, 32, 34-40 and 45-48 have been allowed. Please amend claim 13 as shown.

This listing of claims will replace all prior versions and listings of claims in the application:

Listing of Claims:

1. (Previously Presented) The apparatus according to claim 17, wherein said controller controls said scanning unit to scan the original image irradiated with the invisible light, and then to scan the original image irradiated with the visible light, and

wherein when the original image is irradiated with the visible light, the original image is scanned in a rough scan for roughly scanning the original image, and in a fine scan for scanning the original image under a required condition on the basis of information scanned in the rough scan.

2. (Cancelled)

3. (Previously Presented) The apparatus according to claim 1, wherein said controller controls said scanning unit to make the rough scan after said scanning unit scans the original image irradiated with the invisible light, and then to make the fine scan.

4. (Cancelled)

5. (Previously Presented) The apparatus according to claim 17, further comprising a detection unit adapted to detect abnormality on an original by scanning the original image irradiated with the invisible light.

6. (Original) The apparatus according to claim 5, wherein the abnormality on the original is caused by dust or scratches on the original.

7. (Previously Presented) The apparatus according to claim 5, further comprising a signal processing unit adapted to, when said detection unit detects the abnormality, execute signal processing for correcting an influence of the abnormality from the image signal output from said scanning unit.

8. (Previously Presented) The apparatus according to claim 17, wherein the invisible light is infrared light.

9. (Previously Presented) The method according to claim 22, wherein said scanning step scans the original image irradiated with the invisible light, and then scans the original image irradiated with the visible light, and

wherein when the original image is irradiated with the visible light, the original image is scanned in a rough scan for roughly scanning the original image, and in a fine scan for scanning the original image under a required condition on the basis of information scanned in the rough scan.

10. (Previously Presented) The storage medium according to claim 24, wherein said scanning step scans the original image irradiated with the invisible light, and then scans the original image irradiated with the visible light, and

wherein when the original image is irradiated with the visible light, the original image is scanned in a rough scan for roughly scanning the original image, and in a fine scan for scanning the original image under a required condition on the basis of information scanned in the rough scan.

11. (Previously Presented) The apparatus according to claim 17, further comprising

a moving unit adapted to make a reciprocal motion between the transparent original and said scanning unit, and wherein

said controller controls said scanning unit to scan the transparent original image irradiated with the visible light in a motion in one direction of the reciprocal motion, and to scan the transparent original image irradiated with the invisible light in a motion in the other direction of the reciprocal motion.

12. (Cancelled)

13. (Currently Amended) The apparatus according to claim 11, wherein said controller ~~control unit~~ controls to scan the original image from the transparent original by a rough scan for obtaining a rough image of the transparent original by visible light, a fine scan for obtaining an image of the transparent original by visible light with designated image quality, or an infrared light scan for obtaining an image of the transparent original by infrared light.

14. (Previously Presented) The apparatus according to claim 13, wherein said controller controls to make the infrared light scan in one of two reciprocal motions for respectively making the rough scan and fine scan.

15. (Previously Presented) The apparatus according to claim 14, wherein said controller controls to make the infrared light scan in the motion in one direction of the reciprocal motion for making the rough scan.

16. (Previously Presented) The apparatus according to claim 14, wherein said controller controls to make the infrared light scan in the motion in one direction of the reciprocal motion for making the fine scan.

17. (Previously Presented) An image scanning apparatus comprising:

a light source adapted to emit visible light and invisible light;

a scanning unit adapted to scan a transparent original image irradiated with light emitted by said light source; and

a controller adapted to control said light source and the scanning unit,

wherein an operation mode that skips a scan of the transparent original image irradiated with the invisible light before or after executing a scan of the transparent original image irradiated with the visible light is selectable.

18. (Previously Presented) The apparatus according to claim 11, further comprising a light-shielding unit, placed on a light incoming side of said scanning unit, adapted to cut the invisible light, and wherein said controller controls said light-shielding unit to be retractable from a position on an optical axis.

19. (Previously Presented) The apparatus according to claim 11, further comprising a physical device which is placed on a light incoming side of said scanning unit, and can control

transmittances of the visible light and the invisible light, and wherein said controller controls spectral transmission characteristics of said physical device.

20. (Previously Presented) The apparatus according to claim 11, wherein said light source comprises a first emission section for emitting the visible light, and a second emission section for emitting the invisible light, and said controller controls to turn on/off said first and second emission sections of said light source.

21. (Previously Presented) The method according to claim 22, wherein said scanning step is performed by a reciprocal motion between the transparent original and a scanning unit adapted to scan the transparent original image irradiated with light emitted by the light source, and

wherein said scanning step scans the transparent original image irradiated with the visible light in a motion in one direction of the reciprocal motion, and scans the transparent original image irradiated with the invisible light in a motion in the other direction of the reciprocal motion.

22. (Previously Presented) An image scanning method comprising:

the emission step of emitting light by a light source adapted to emit visible light and invisible light; and

the scanning step of scanning a transparent original image irradiated with light emitted by the light source,

wherein an operation mode that skips a scan of the transparent original image irradiated with the invisible light before or after executing a scan of the transparent original image irradiated with the visible light is selectable.

23. (Previously Presented) The storage medium according to claim 24, wherein said scanning step is performed by a reciprocal motion between the transparent original and a scanning unit adapted to scan the transparent original image irradiated with light emitted by the light source, and

wherein said scanning step scans the transparent original image irradiated with the visible light in a motion in one direction of the reciprocal motion, and scans the transparent original image irradiated with the invisible light in a motion in the other direction of the reciprocal motion.

24. (Previously Presented) A computer readable storage medium, which stores a program for implementing an image scanning method said image scanning method having the emission step of emitting light by a light source adapted to emit visible light and invisible light; and the scanning step of scanning a transparent original image irradiated with light emitted by the light source, wherein an operation mode that skips a scan of the transparent original image irradiated with the invisible light before or after executing a scan of the transparent original image irradiated with the visible light is selectable.

25. (Previously Presented) The apparatus according to claim 17, wherein said scanning unit makes three types of scans including a rough scan for scanning the original image irradiated with the visible light at a low resolution, a fine scan for scanning the original image

irradiated with the visible light at a high resolution, and an invisible light scan for scanning the original image irradiated with the invisible light, and

wherein said scanning unit makes the invisible light scan at a lower resolution than the fine scan.

26. (Previously Presented) The apparatus according to claim 17, wherein the invisible light scan is to scan dust or scratch information on the original.

27. (Previously Presented) The apparatus according to claim 11, wherein said scanning unit makes the rough scan in a motion in one direction of the reciprocal motion, and makes the invisible light scan in a motion in the other direction of the reciprocal motion.

28.-31. (Cancelled)

32. (Previously Presented) The apparatus according to claim 17, wherein the original is a film original.

33. (Cancelled)

34. (Previously Presented) The method according to claim 22, wherein said scanning step includes:

the rough scan step of scanning the original image irradiated with the visible light at a low resolution;

the fine scan step of scanning the original image irradiated with visible light at a high resolution;

the invisible scan step of scanning the original image irradiated with the invisible light at a lower resolution than the resolution in the fine scan step.

35. (Previously Presented) The storage medium according to claim 24, wherein said scanning step includes:

the rough scan step of scanning the original image irradiated with the visible light at a low resolution;

the fine scan step of scanning the original image irradiated with the visible light at a high resolution; and

the invisible scan step of scanning the original image irradiated with the invisible light at a lower resolution than the resolution in the fine scan step.

36. (Previously Presented) The apparatus according to claim 17, wherein said scanning unit makes two types of scans including a visible light scan for scanning the original image irradiated with the visible light, and an invisible light scan for scanning the original image irradiated with the invisible light, and

wherein said scanning unit completes the invisible light scan within a shorter period of time than the visible light scan.

37. (Previously Presented) The apparatus according to claim 17, wherein said scanning unit makes two types of scans including a visible light scan for scanning the original image irradiated with visible light, and an invisible light scan for scanning the original image irradiated with invisible light, and

wherein said scanning unit makes the invisible light scan at a higher speed than the visible light scan.

38. (Previously Presented) The apparatus according to claim 36, wherein an output signal level of said scanning unit in the invisible light scan is lower than an output signal level in the visible light scan.

39. (Previously Presented) The apparatus according to claim 36, wherein spectral intensity characteristics of said light source have a higher emission intensity in the invisible light than an emission intensity in the visible light.

40. (Previously Presented) The apparatus according to claim 36, wherein spectral sensitivity characteristics of said scanning unit have a higher sensitivity in the invisible light than a sensitivity in the visible light.

41.-44. (Cancelled).

45. (Previously Presented) The method according to claim 22, wherein said scanning step includes:

the visible light scan step of scanning the original image irradiated with the visible light; and

the invisible light scan step of scanning the original image irradiated with the invisible light within a shorter period of time than the visible light scan step.

46. (Previously Presented) The method according to claim 22, wherein said scanning step includes:

the visible light scan step of scanning the original image irradiated with the visible light; and

the invisible light scan step of scanning the original image irradiated with the invisible light at higher speed than the visible light scan step.

47. (Previously Presented) The storage medium according to claim 24, wherein said scanning step includes:

the visible light scan step of scanning the original image irradiated with the visible light; and

the invisible light scan step of scanning the original image irradiated with the invisible light within a shorter period of time than the visible light scan step.

48. (Previously Presented) The storage medium according to claim 24, wherein said scanning step includes:

the visible light scan step of scanning the original image irradiated with the visible light; and

the invisible light scan step of scanning the original image irradiated with the invisible light at higher speed than the visible light scan step.